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ABSTRACT

Until recently the literature on the impact of child sexual abuse has consisted disproportionately of retrospective studies of adults. Research on children allows for a developmental perspective and includes the first efforts at longitudinal studies of sexual abuse victims. This literature also has important relevance to other theory and research concerning how children process trauma, for example, how trauma expresses itself at various developmental stages, its role in the development of later psychopathology, and the mediating effects of important factors such as familial and community support. A review of 46 studies clearly demonstrates that sexually abused children have more symptoms than non-abused children, with abuse accounting for 15 to 45 percent of the variance. Fears, post-traumatic stress disorder, behavior problems, sexualized behaviors and poor self-esteem occur most frequently among a long list of symptoms noted, but no one symptom characterizes a majority of sexually abused children. Some symptoms are specific to certain ages, and approximately one-third of victims have no symptoms. Penetration, duration and frequency of the abuse, force, relationship of the perpetrator to the child, and maternal support affect the degree of symptomatology. About two-thirds of the victimized children show recovery during the first 12 to 18 months. The findings suggest the absence of any specific "sexually-abused-child syndrome" and no single traumatizing process. The need for theory testing and methodological development is emphasized. (Author/LLL)

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The Impact of Sexual Abuse on Children: A Review and Synthesis of Recent Empirical Studies

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Abstract

A review of 46 studies clearly demonstrates that sexually abused children have more symptoms than non-abused children, with abuse accounting for 15 to 45 percent of the variance. Fears, post-traumatic stress disorder (PTSD), behavior problems, sexualized behaviors and poor self-esteem occur most frequently among a long list of symptoms noted, but no one symptom characterizes a majority of sexually abused children. Some symptoms are specific to certain ages, and approximately one-third of victims have no symptoms. Penetration, duration and frequency of the abuse, force, relationship of the perpetrator to the child, and maternal support affect the degree of symptomatology. About two-thirds of the victimized children show recovery during the first 12 to 18 months. The findings suggest the absence of any specific "sexually-abused-child syndrome" and no single traumatizing process. The need for theory testing and methodological development is emphasized.

The Impact of Sexual Abuse on Children: A Review and Synthesis of Recent Empirical Studies

Until recently the literature on the impact of child sexual abuse has consisted disproportionately of retrospective studies of adults. For example, a widely cited review (Browne & Finkelhor, 1986) based its conclusions on only four studies of children, compared to 23 studies of adults. Not surprisingly, most reviews have combined studies on both groups, since research focusing on children was rare.

In the period since 1985, there has been an explosion in the number of studies that concentrate specifically on sexually abused children. Some studies even focus on specific types of child victims, such as preschoolers, boys, or victims of ritualistic abuse. This literature on child victims is distinct in several important ways from the research on adults. First, it often uses different methodologies, many times relying on reports of parents or clinicians rather than on self reports. In addition, these studies often evaluate specifically child-oriented symptoms, such as regressive behavior. These methodologies and the concentration on child-oriented symptoms makes this research more relevant to intervention and treatment with children, as treatment implications for children were difficult to extrapolate from the research on the effects of sexual abuse on adults.

Research on children allows for a developmental perspective and includes the first efforts at longitudinal studies of sexual abuse victims. This literature also has important relevance to other theory and research concerning how children process trauma: for example, how trauma expresses itself at various developmental stages, its role in the development of later psychopathology, and the mediating effects of important factors such as

familial and community support. Therefore, research on the effect of sexual abuse on children is a literature worthy of a specific review.

This paper will undertake such a review: 1) to bring together literature from a broad spectrum of fields including medicine, social work, psychology, and sociology; 2) highlight areas where there is agreement and disagreement in findings; 3) draw conclusions that may be useful for clinicians currently working with child victims and researchers studying this problem; and 4) suggest directions for future research and theory.

Domain

For the present review, we included studies of child victims (See Note 1) of sexual abuse, where all subjects were 18 years of age or younger (See Appendix). All of these studies reported quantitative results of at least one of the following types: a comparison of sexually abused children with nonabused children or norms (clinical and/or nonclinical), or the percentage of victims who manifested some symptom. Certain other studies that did not contain these types of data, yet included other relevant data on intervening variables or longitudinal findings, are not listed in the Appendix but are referenced in the appropriate sections. The majority were published within the past five years. Since there has been so much research activity on this topic in the past few years, we also included some unpublished material (most of the manuscripts are currently under review), located through researchers who specialize in research in this area. While we undoubtedly missed some articles, we are confident that we were able to locate most of them because of the network of researchers we contacted.

Excluded from the present review were non-quantitative or case studies; studies of sexual abuse victims only within a special population (such as

runaways, teen prostitutes, or in one case, subjects referred through a pedophile organization); and studies that involved both adult and child victims (e.g., ages 15 to 45).

The studies used samples from several different sources, but primarily drew from sexual abuse evaluation or treatment programs. Some recruited from specific subgroups of victims, such as sex-ring or day-care victims. Most studies combined victims of intra- and extrafamilial abuse. The samples also included a wide variety of ages, covering the entire spectrum from preschool to adolescence. The sample sizes ranged from very small (N=8) to large (N=369), with the majority between 25 to 50 children. Approximately half (55 percent) of the studies used comparison groups, and six had both nonabused clinical and nonabused nonclinical controls. This is a major improvement over studies conducted even 10 years ago. The studies used a variety of sources for assessment including parent report, chart review, clinician report and children's self report.

In reviewing these studies, we first looked at the findings with regard to symptoms, and then at intervening variables affecting these symptoms. We then paid particular attention to the longitudinal studies thus far undertaken. Finally, we drew conclusions for theory and future research.

Comparison of Abused and Nonabused Children

The studies that compared sexually abused children to nonabused clinical or nonclinical children (or norms) have examined a wide range of symptoms. Table 1 groups these symptoms together under major headings.

Insert Table 1 about here

By far the most commonly studied symptom was sexualized behavior, often considered the most characteristic symptom of sexual abuse. Sexualized behavior usually includes such things as sexualized play with dolls, putting objects into anuses or vaginas, excessive or public masturbation, seductive behavior, requesting sexual stimulation from adults or other children, and age-inappropriate sexual knowledge (Beitchman, Zucker, Hood, daCosta, & Akman, 1991). Other symptoms that appeared in many studies included anxiety, depression, withdrawn behavior, somatic complaints, aggression, and school problems (See Column 1). (Note that the numbers in columns 2 through 4 do not necessarily add up to the number in column 1 because column 1 includes some studies citing only the percentage of children with symptoms.)

Column 2 shows the number of studies where sexually abused children were more symptomatic than their nonabused counterparts. The denominator was the number of studies that made this comparison. For many symptoms, all of the studies that made such a comparison found a difference. These symptoms are fear, nightmares, general post-traumatic stress disorder (PTSD), withdrawn behavior, neurotic mental illness, cruelty, delinquency, sexually inappropriate behavior, regressive behavior (including enuresis, encopresis, tantrums, and whining), running away, general behavior problems, self-injurious behavior, internalizing and externalizing (see Note 2). The symptom with the lowest percentage of studies which found a difference (besides suicidal behavior, only one study) was poor self-esteem (50 percent). This may be in part because poor self-esteem is so common and has so many possible causes. It may also be because this symptom was the one most frequently measured by child self-report, a method that may underestimate pathology (see section on methodological issues). Nonetheless, for almost every symptom

examined, including self-esteem, most studies found sexually abused children more symptomatic than their non-abused counterparts.

The comparison between sexually abused children and other clinical, non-abused children (i.e., children in treatment), however, tells a different story (Columns 3, 4 and 5). For most symptoms measured, sexually abused children were actually less symptomatic than these clinical children in the majority of the studies. For only two symptoms were sexually abused children consistently more symptomatic than nonabused clinical children: PTSD (just one study) and sexualized behavior (six out of eight). Thus, sexually abused children generally appeared to be less symptomatic than their nonabused clinical counterparts except in regard to sexualized behavior and PTSD. These results must be understood, though, in the light of two features of the clinical comparison groups which with abused children are often compared. First, most clinical comparison groups of so-called nonabused children probably actually do contain children whose abuse simply has not yet been discovered. Using these groups, the comparison is not a true abused vs. non-abused comparison. Second, clinical comparison groups generally contain many children who are referred primarily because of their symptomatic behavior. Naturally these children will likely be more symptomatic than children referred not because of symptoms, but because of something done to them (i.e., abuse). Thus, the lower levels of symptoms in sexually abused children may say more about the cliical comparisons than about the sexually abused children themselves.

For a synthesis of findings such as in Table 1, a comparison of effect sizes would ordinarily be preferable to the so-called simple "box score" approach used. Unfortunately, most of the studies reviewed here did not present data in a form amenable to the calculation of effect sizes. We were,

however, able to calculate effect sizes (Table 2) for seven symptoms where enough studies had provided adequate information for a comparison of abused and nonabused nonclinical children (all between-groups comparisons; See Notes 3 and 4). The symptoms were anxiety, sexualized behavior, depression, withdrawal, aggression, internalizing, and externalizing.

Insert Table 2 about here

Table 2 shows that sexual abuse status alone accounted for a very large percentage of the variance for all seven symptoms, with the sexually abused children manifesting significantly more of all these symptoms. The highest effect sizes (eta's) were for the acting out behaviors such as sexualized behaviors and aggression. Sexual abuse status accounted for 43 percent of the variance for these two behaviors and 32 percent of the variance for externalizing. While a large effect size is not necessarily surprising for sexualized behavior, it is for more global symptoms such as aggression and externalizing, which could have a variety of underlying causes.

Sexual abuse status also accounted for a large percentage of the variance (35 to 38 percent) for the internalizing behaviors--internalizing, depression, and withdrawal. The smallest percentage of variance accounted for was for anxiety, 15 percent, but even this is a large effect.

Overall, the results of effect size analysis support the earlier conclusion that being sexually abused is strongly related to some symptoms specific to sexual abuse, such as sexualized behavior, as well as a range of more global symptoms such as depression, aggression, and withdrawal. Nonetheless, sexually abused children did not appear to be more symptomatic

then are other clinical children, except in the case of PTSD and sexualized behavior.

Percentage of Victims with Symptoms

Many researchers simply report whether sexually abused children are more symptomatic than non-abused children. Yet it is also important to know the actual percentage of victims with each symptom. Some symptoms may occur more often in sexually-abused than nonabused children, but occur so rarely that they are of little concern for the majority of children in treatment. The actual frequency of such symptoms in the population of abused children can be an important guide to clinicians in diagnosis and treatment. Further, this information is helpful for clinicians and researchers who may want to anticipate the consequences of abuse, or develop theory about the process of recovery from abuse. In Table 3, we have synthesized information about these frequencies.

The range of children with each symptom varied widely from study to study, which is not unusual given the heterogeneity of sources. So, for each symptom, we calculated a weighted average across all studies, dividing the total number of children with a symptom by the total number of children in all the studies reporting on that symptom.

Insert Table 3 about here

Across all studies, the percentage of victims with a particular symptom is mostly between 20 to 30 percent. It is important to note that there is no symptom manifested by a majority of victims with the exception of PTSD. However, there have been relatively few studies of PTSD, and half the children

included in this calculation were victims of severe ritualistic abuse from Los Angeles-area daycare cases (Kelly, in press a), thus inflating the percentage. If we exempt these unusually severely abused children, the average percentage of victims with symptoms of PTSD would be 32 percent, near the level of other frequently occurring symptoms such as poor self esteem (35 percent), promiscuity (38 percent), and general behavior problems (37 percent). Since a large number of studies used the Child Behavior Checklist (CBCL), we also calculated the percentage of children in the clinical range (or with "elevated scores") for internalizing and externalizing symptomatology.

Overall, the percentage of victims with the various symptoms may seem low to those with a clinical perspective. Part of the problem with the analysis of these composite percentages is that many of the symptoms did not occur uniformly across all age groups. We, therefore, re-examined the weighted percentages presented in Table 4, grouped by the age of the child at assessment. Percentages were calculated for preschool (approximately 0 to 6 years), school-age (approximately 7 to 12 years), adolescents (approximately 13 to 18 years), and mixed age groups (e.g., 3 to 17). The ages reported in different studies varied and overlapped a bit from these guidelines, but by and large fell within these ranges. From a developmental standpoint, we should emphasize that these are very crude cuts across large developmental periods. Further, they represent age at the time of report, not at the age of onset or end of molestation. In addition, there is no control for the context in which the abuse occurred or the variables that mediated the effects of that abuse.

Insert Table 4 about here

Age and Developmental Differences

The results of this analysis (Table 4) show striking developmental patterns. Studies with mixed age ranges have the lowest percentages of victims with symptoms, and this effect appeared across the board. By contrast, when children are re-grouped by age, they appear to be more symptomatic than when they were combined in one large age group.

For preschoolers, the most common symptoms were anxiety, nightmares, general PTSD, internalizing, externalizing, and inappropriate sexual behavior. For school-age children, the most common symptoms included fear, neurotic and general mental illness, aggression, nightmares, school problems, hyperactivity, and regressive behavior. For adolescents, the most common behaviors were depression, withdrawn, suicidal or self-injurious behaviors, somatic complaints, illegal acts, running away and substance abuse. Among the symptoms that appeared prominently for more than one age group are nightmares, depression, withdrawn behavior, neurotic mental illness, aggression and regressive behavior.

To date, the majority of data on the effects of sexual abuse on children have been collected cross-sectionally, with data being collected only once per child. Nevertheless, from this cross-sectional data it is possible to hypothesize some developmental trajectories of changes in symptomatology. The question remains, however, as to whether these changes in symptomatology will occur within a given child at different stages or if they represent developmental changes in response to sexual abuse at the time of report.

Depression appears to be a particularly robust symptom across age groups, and is also one that appears frequently in adults molested as children (McGrath, Keita, Strickland, & Russo, 1990). School and learning problems are also fairly prominent for all three age groups, especially among school-age

children and adolescents. This is a symptom that would not appear for adults, but could be parallel to employment difficulties for adults since both are structured environments the person must report to every day, and both require equivalent types of skills.

Behavior labeled as anti-social in preschool- and school-age children might be labeled as illegal acts in adolescents. Similarly, the results of our analysis and a recent review by Beitchman, et al. (1991) indicate that sexualized behaviors may be a prominent symptom for preschool-age children, submerge during latency (or the school-age period), and re-emerge during adolescence as promiscuity, prostitution, or sexual aggression. These same symptoms might manifest themselves as sexual dysfunctions or sex offending in adulthood, although this has yet to be demonstrated empirically.

The results presented on Table 4 suggest that much symptomatology is developmentally specific, and that generalizing across large age groups distorts the patterns. Fortunately, this is more a problem of data analysis and presentation of findings than it is of data collection, so future research should be able to address this issue. Developmental theory and suggestions for future research are described in the Discussion section.

Asymptomatic Children

In addition to the percentage of children with specific symptoms, another important statistic is the percentage of children with no symptoms. This figure has important clinical implications concerning the group of children for whom the impact of abuse may be muted or masked. Unfortunately, few investigators report on such "asymptomatic children," perhaps out of concern that such figures might be misinterpreted or misused.

Nonetheless, when investigators have made such estimates, they have found a substantial and, perhaps to some, surprising proportion of the victims to be free of the symptoms being measured. For example, Caffaro-Rouget, Lang and vanSanten (1989) found that 49 percent were asymptomatic at their assessment at a pediatric exam. Mannarino and Cohen (1986) found that 31 percent were symptom free, and Tong, Oates and McDowell (1987) found that 36 percent were within the "normal" range on the Child Behavior Checklist. Finally, Conte and Schuerman (1987b) indicated that 21 percent of their large sample appeared to have had no symptoms at all, even though their assessment included both very specific and broad items such as "fearful of abuse stimuli" and "emotional upset."

There are several possible explanations for why so many children appeared to be asymptomatic. The first possibility is that the studies have not included measures of all appropriate symptoms or they were not using sensitive enough instruments. Most individual studies only examined a limited range of possible effects. So some of the asymptomatic children may be symptomatic on dimensions that are not being measured.

Another possibility is that asymptomatic children are those who have yet to manifest their symptoms. This could be either because they are effective at suppressing them or have not processed their experiences, and that the true traumatization occurs at subsequent developmental stages, when the children's victim status comes to have more meaning or consequences for them (Berliner, in press). We would expect these children to manifest symptoms later on. In one study that supports this interpretation (Gomes-Schwartz, Horowitz, Cardarelli & Sauzier, 1990), the asymptomatic children were the ones most likely to worsen by the time of the 18-month follow up: 30 percent of them developed symptoms. To date, no one has replicated this finding, however.

A final explanation is that perhaps asymptomatic children are truly less affected. Research indeed suggests there is a relationship between the seriousness and duration of the abuse and the amount of impact (see below). The asymptomatic children might be those with the least damaging abuse. They may also be the most resilient children: the ones with the most psychological, social, and treatment resources to cope with the abuse.

All three explanations may in fact be simultaneously correct. Unfortunately, the issue of asymptomatic children has been peripheral until recently. Too few studies have even mentioned the issue, and fewer still have looked at the correlates of being "symptom-free." Future studies need to address this issue more fully, not as a sidebar of unusual findings, but as a central topic in its own right.

Intervening Variables

Many studies (25 of the 46 we reviewed) have tried to account for variations in the children's symptomatology by examining characteristics of the abuse experience. For some of these variables, Table 5 speaks for itself, but the variables with contradictory or confusing results are discussed below.

Insert Table 5 about here

Age at the time of assessment has been the most commonly considered intervening variable. The majority of studies indicated that children who are older at the time of assessment appeared to be more symptomatic than those who are younger. However, most of these studies did not control for the effect of duration (those who are older may have had longer molestations), identity of the perpetrator (intrafamilial perpetrators may have been able to continue

the abuse for a longer time), or severity of the molestation (older victims may have experienced more severe sexual acts). Three studies found no significant differences depending on age at time of assessment (Einbender & Friedrich, 1989; Friedrich, Urquiza & Beilke, 1986; Kolko, Moser & Weldy, 1988); one study found that younger children were more symptomatic (Wolfe, Gentile & Wolfe, 1989); and one found a curvilinear relationship between age and symptomatology, with the middle age range being more symptomatic (Gomes-Schwartz, Horowitz & Sauzier, 1985). While the data appear to indicate roughly that older children are more negatively affected, these results should be interpreted with caution because of the lack of control over other relevant variables.

Age of onset is another possible intervening variable. Only one study found that age of onset was related to symptoms, however, showing that those with early age of onset were more likely to manifest symptoms of pathology (Zivney, Nash & Hulsey, 1988). Two other studies found no difference in level of pathology for early versus late age of onset. By and large, it appears that age of onset must be fit into a total conceptual model of molestation. There has not been sufficient research done to warrant any conclusions about whether early versus late age of onset is more likely to lead to greater symptomatology. Age of onset might be related more to other characteristics of the abuse (such as identity of the perpetrator) than it is to overall number and severity of symptoms. Although the relation of age of onset to symptomatology in children is not clear at this time, two recent studies have found that an early age of onset is related to amnesia among adult survivors (Briere & Conte, 1989) and to a late presentation into treatment (Kendall-Tackett, 1991a).

With regard to sex of the subject, few studies have found consistent differences in the reaction of boys and girls to molestation. Even the widely cited finding that boys tend to have more externalizing and girls more internalizing symptoms (Friedrich, Beilke & Urquiza, 1988) has not been consistently replicated. Moreover, the majority of the studies showing differences on one or two dimensions found similarity on most dimensions. This absence of consistent gender differences is all the more interesting in that girls are more likely to suffer intrafamilial abuse, which has been associated with more severe effects (Finkelhor, Hotaling, Lewis & Smith, 1990). The lack of more systematic attention to gender differences may be due in part to the small number of male victims in most studies, and the possibility that due to bias in the identification of male victims only the most symptomatic boys end up in clinical samples. It may also be due to the fact that comparison of males and females has produced too few interesting differences to motivate researchers to place them in center focus. Nevertheless, researchers should address the issue of sex of the victims in future reports.

The majority of studies did find that penetration (oral, anal, or vaginal) influenced impact of sexual abuse, but most studies differed in their definitions of "severity." To further add to the confusion, some of the studies added together all the sexual acts that a victim experienced, and therefore their indices of severity included the severity as well as the number of sexual acts. Even with all these variations, it appeared that molestations that contained some form of penetration were more likely to produce symptoms than molestations that did not.

Identity of the perpetrator is another factor that has been related to impact of abuse. The weight of the evidence indicated that a perpetrator who

is "close" to the victim causes more serious effects than one who is less close. To date, there does not appear to be a uniform coding scheme for "closeness," however, as illustrated by conflicting practices in whether fathers and stepfathers are coded in the same category. Future research should try to determine a measure of emotional closeness or degree of caretaking responsibility rather than relying on the kinship label of perpetrator-victim relationship.

On a similar note, the impact of the number of perpetrators is not clear. The number of perpetrators was positively correlated with number of symptoms in one study, negatively correlated with number of symptoms in another, and not correlated with symptoms in another. Future research should address this issue.

Time elapsed since the last abusive incident and assessment is a variable with intuitive appeal, but it has been examined in very few studies. Only 55 percent of studies in the present review even bothered to mention time elapsed, and it can vary from a few days to several years. Only three studies have examined the possible relationship between time elapsed and impact of abuse. In one study (Friedrich, Urquiza & Beilke, 1986), children became less symptomatic over time, while in two other studies (McLeer, Deblinger, Atkins, Foa & Ralphe, 1988; Wolfe, et al., 1989) it made no difference. It appears to be too early to decide if time elapsed is correlated with number of symptoms. Therefore, we should find out more about this variable before we assume that it makes no difference.

In summary, the findings of the various studies reviewed indicated that molestations that include a close perpetrator; high frequency of sexual contact; long duration; use of force; sexual acts that include oral, anal or vaginal penetration lead to a greater number of symptoms for victims.

Similarly, as all the studies that included these variables indicated, lack of maternal support at time of disclosure and a victim's negative outlook or coping style also led to increased symptoms. The influence of age at time of assessment, age at onset, number of perpetrators, and time elapsed between the end of abuse and assessment is still somewhat unclear at the present time and should be included in future studies on the impact of intervening variables.

It should be kept in mind when interpreting these findings that certain intervening variables are highly correlated. For example, intrafamilial abuse normally goes on over a longer period of time and involves more serious kinds of sexual activity. These types of natural confounds make it difficult to fully analyze the independent effects of intervening variables, especially since very few studies include more than one or two, and almost no one statistically controls for the effects of these variables. Future research should also include a more systematic tabulation of these variables.

Longitudinal Studies

Perhaps the single most encouraging development in the field has been the appearance of longitudinal studies (Bentovim, vanElberg & Boston, 1988; Conte, 1991; Everson, Hunter & Runyan, 1991; Friedrich & Reams, 1987; Gomes-Schwartz, Horowitz, Cardarelli & Sauzier, 1990; Goodman, Taub, Jones, England, Port, Rudy & Prado, in press; Hewitt & Friedrich, 1991; Mannarino, Cohen, Smith & Moore-Motily, in press; Runyan, Everson, Edelson, Hunter & Coulter, 1988; Waterman, in press; Valliere, Bybee & Mowbray, 1988). Most of these follow-ups have been for approximately 12 to 18 months, with a few ranging from 2 to 5 years (Bentovim, vanElberg & Boston, 1988; Waterman, in press). These studies allowed a perspective on two important issues: 1) what is the course of symptomatology over time, and 2) what contributes to recovery?

The picture provided by the longitudinal studies is tentative, but some generalizations are possible. Overall, symptoms seem to abate with time. The pattern of recovery is different for different symptoms, and some children actually appear to worsen.

Abatement of Symptoms

Abatement of symptoms has now been demonstrated in at least seven longitudinal studies covering all age groups (Gomes-Schwartz, et al., 1990; Runyan, et al., 1988; Conte, 1991; Bentovim, et al., 1988; Hewitt & Friedrich, 1991; Goodman, et al., in press; Mannarino, et al., in press) For example, Gomes-Schwartz, et al., (1990) noted substantial diminution of emotional distress in 55 percent of the victims (mixed-age group) over 18 months. In Bentovim, et al. (1988), social workers evaluated improvement in the level of symptoms of 61 percent of the children. Hewitt and Friedrich (1991) noted that 65 percent of preschool-age children improved over a period of one year. About two-thirds of even the ritualistically abused preschoolers, who were initially in the clinical range on the Child Behavior Checklist (CBCL) (Waterman, in press), had moved back into the normal range upon follow up.

Nonetheless, there is a sizeable group of children who appeared to get worse: anywhere from 10 to 24 percent [Bentovim, et al., 1988 (10 percent); Gomes-Schwartz, et al., 1990 (24 percent); Hewitt & Friedrich, 1991 (18 percent); Runyan, et al., 1988 (14 percent)]. Some of these were children who had none of the symptoms measured at the time of initial assessment (Gomes-Schwartz, et al., 1990).

Some investigators have also noted a pattern of which symptoms tend to abate. Gomes-Schwartz, et al. (1988) found that signs of anxiety (e.g. sleep problems, or fears of the offender) were most likely to disappear, while signs of aggressiveness (such as fighting with siblings) tended to persist or

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worsen. This was consistent with Mannarino, et al.'s (in press) finding of a significant reduction over time in the internalizing but not the externalizing scales of the CBCL. The other pattern which may increase over time, at least for the under-12 group, is sexual preoccupations (Gomes-Schwartz, et al., 1990; Friedrich & Reams, 1987). It is not entirely clear what this symptom abatement implies. While some symptoms may be more transient than others, it does not necessarily mean that underlying trauma is resolved, perhaps only that overt manifestations of more easily masked. Moreover, these changes may have less to do with abatement of trauma than developmental changes in symptomatology, with children at each age manifesting different types of symptoms.

There is a long list of correlates of improvement over time, but few of these findings have been demonstrated by more than one study. No study has found age to be strongly correlated with recovery, although Goodman et al. (in press) found that 6 to 11 year olds recovered most quickly in the very short term (3 months after the trial). Neither gender (Gomes-Schwartz, et al., 1990; Goodman, et al., in press), nor race and SES (Gomes-Schwartz, et al., 1990) have been factors in recovery. Children, who were also the most disturbed at the time of first assessment, have been found to make the most recovery (Gomes-Schwartz, et al., 1990), but this may be an artifact.

Family and Treatment Variables

A key variable in recovery was family support, demonstrated by several studies. Children who had maternal support recovered more quickly (Everson, et al., 1991; Goodman, et al., in press). Maternal support was demonstrated through believing the child and acting in a protective way toward the child. Waterman (in press) found the least symptomatic children at five years after

disclosure were those whose mothers were most supportive and whose families had less strain, enmeshment and expressions of anger.

Interestingly, the effect of therapy has not been extensively examined. In one study (Gomez-Schwarz, et al., 1990), all clients received crisis intervention through the research project. Approximately 35% sought long-term therapy. Only 15% of subjects had received therapy in the specialized program run by the research team. These showed the greatest amount of recovery. Those who received therapy in the community at large (20% of subjects) did not appear to recover as well. The authors did not elaborate on the type of long-term therapy that clients received either through the researchers' proogram or in the community at large, however, Goodman, et al. (in press) found psychological counseling unrelated to improvement. But again, clients sought therapy in the outside community and there was no control for the type of quality of the therapy they received.

Court Involvement

The impact of court-involvement and testimony has also been a focus of several of the longitudinal studies because of the intense public policy debate surrounding this issue. In one study (Goodman, et al., in press), children involved in court proceedings were slower to recover over both a 7- and an 11-month period than were children not involved in court. Recovery was particularly impeded among children who had to testify on multiple occasions, who were afraid of their perpetrators, and who testified in cases where there was no other corroborating evidence. The outcome of the trial (conviction or acquittal of the perpetrator) made no independent contribution, nor did the number of times that the child was interviewed.

Runyan, et al. (1988) had more mixed findings with regard to the impact of court-involvement. The children with slower recovery in this study were

those who were involved in a criminal case that was still not resolved five months after the initial evaluation. However, those whose cases had terminated more quickly with a conviction or plea bargain recovered just as quickly as those with no court involvement at all. In fact, those children who testified in juvenile court proceedings recovered more quickly. However, in a follow-up of adolescents from the same study, Everson, et al. (1991) found that having to testify on multiple occasions causes negative effects, thus concurring with the findings of Goodman, et al. (in press).

Although the longitudinal studies showed the risks involved in testimony, at least one cross-sectional study confirmed that testimony in protected court settings can mitigate trauma. In this study of victims abused in day care, children who testified via closed-circuit television, videotaped testimony or in closed courtrooms suffered fewer symptoms of maladjustment than did the children who testified in open court (Williams, 1991).

Overall, the research to date indicated that criminal court involvement poses more risks than benefits to children's recovery, at least in the short run. But the risks have been specifically associated with certain aspects of court-involvement that can be modified or avoided. For example, negative impact can be lessened by resolving cases quickly, by preventing a child from having to testify on multiple occasions, and by not requiring a frightened child to face a defendant. Thus while the research urges caution, it cannot be interpreted as a categorical argument against the prosecution of sexual abuse.

Revictimization

The follow-up studies lend an important perspective to the question of whether abuse victims were reabused in the year or two after disclosure. Most studies showed the rates to be between 6 and 19 percent [Bentovim, et al.,

1988 (16 percent); Daro, 1988 (19 percent); Gomes-Schwartz, et al., 1990 (6 percent)], with follow up ranging from 18 months to five years. Daro (1988) points out that the reabuse rate for sexually abused children in her study (19 percent) was still substantially lower than the reabuse rate for victims of neglect or emotional abuse.

In summary, in the first year or year and a half after disclosure, one half to two-thirds of all children became less symptomatic, while 10 to 24 percent become more so. Six to nineteen percent experienced additional sexual abuse. Fears and somatic symptoms abated the most quickly, while aggressiveness and sexual preoccupations were the most likely to remain or increase. Children's recovery is clearly assisted by a supportive family environment, and certain kinds of court experiences delay recovery.

Discussion

The present review confirms the general impression that the impact of sexual abuse is serious and can manifest itself in a wide variety of symptomatic and pathological behaviors. There is virtually no general domain of symptomatology that has not been associated with a history of sexual abuse. Age and a variety of abuse-related factors can affect both the nature and the severity of symptoms. However, some sexually abused children may also appear to have no apparent symptoms. Indeed, approximately one third of sexually abused children fall into this category. These findings have a number of important implications for theory development.

Core-symptom Theories

The first, and perhaps most important, implication is the apparent lack of evidence for a conspicuous a child-sexual-abuse syndrome. The evidence against such a syndrome includes the variety of symptoms children manifest,

and the absence of a particular symptom in a large majority of children. Despite the lack of a single symptom that occurs in the majority of victims, both sexualized behavior and symptoms of PTSD occurred with relatively high frequency. These also appeared to be the only two symptoms more common in sexually abused children than in other clinical groups. Even though they do not occur in all victims, some theorists have forwarded PTSD and sexualized behaviors as the core manifestations of sexual abuse trauma (Corwin, 1989; Jampole & Weber, 1987; Wolfe, et al., 1989), so the evidence pertaining to these two symptoms is worth reviewing more carefully.

The frequency of sexualized behavior in sexually abused children (including frequent and overt self-stimulation, inappropriate sexual overtures toward other children and adults, compulsive talk, play and fantasy with sexual content) is somewhat difficult to determine. Although it is the most regularly studied symptom, its occurrence varyies enormously. Across six studies of preschoolers (the children most likely to manifest such symptoms) an average of 35 percent exhibited sexualized behavior. Friedrich, Grambasch, Damon, Hewitt, Koverola, Lang and Wolfe (in press), using an instrument specially designed to measure such behaviors, may detect somewhat higher percentages. But across all sexually abused children it may be only half of all victims. The lowest estimate (7 percent) was based on a very large study, including many well-functioning and older children. Besides sample and methodological differences, other variations may well arise because the concept itself (sometimes it is called inappropriate sexual behavior and other times it is called sexual acting out) can be vague. Further, some forms of sexualization may be quite minor and transitory (such as play with anatomical dolls), while others may be deeply etched, even affecting a child's physiology. Putnam (1990; F. Putnam, personal communication, January 10,

1991) and colleagues detected elevated hormone levels among some sexually abused girls, and evidence that onset of puberty was advanced for these girls by as much as one year. Although such physiological changes could be the effect of sexualization or, alternatively, one of its sources, it suggests how profound and pervasive the impact can be.

While sexualization is relatively specific to sexual abuse (more so than symptoms such as depression), non-sexually abused children may also be sexualized. For example, Deblinger, McLeer, Atkins, Ralphe & Foa, (1989) found that 17 percent of physically (but not sexually) abused children exhibited sexually inappropriate behavior. Although sexualized behavior may be the most characteristic symptom of sexual abuse, and the one that best discriminates between abused and non-abused children, still as many as half of victims may not be overtly sexualized, and this symptom does not occur only in sexually abused children. From a clinical point of view, this symptom may indicate sexual abuse, but is not completely diagnostic since children can apparently appear to be sexualized for other reasons.

The evidence for PTSD as a central effect of sexual abuse is also its relative frequency (particularly in preschool and school-age victims) and its higher incidence in sexual abuse victims than in other clinical groups. Some clinicians have, in recent years, claimed that child sexual abuse victims almost universally suffered from PTSD (e.g., Frederick, 1986), but the research does not support this. The two most thorough clinical evaluations of PTSD (according to DSM-IIIR criteria) found that 48 percent of sexually abused children in one study (McLeer, et al., 1988) and 21 percent in another (Deblinger, et al., 1989) could be diagnosed as having PTSD. Although many other children have related symptoms, such as fears, nightmares, somatic complaints, autonomic arousal and guilt feelings, it is not clear whether this

is evidence for PTSD dynamics or other symptoms. Moreover, it is well established that many non-sexually abused children suffer from PTSD, so that PTSD is not specific to sexual abuse.

PTSD has served as a focal point for analysis of sexual abuse trauma, in part because it is a well-developed, generalized theory of traumatic processes. Finkelhor (1987), however, has raised some questions about how well the model of PTSD accounts for sexual abuse trauma. Theorists describe PTSD as resulting from experiences that are overwhelming, sudden, and dangerous (Figley, 1986; Pynoos & Eth, 1985). Much sexual abuse, however, lacks these components, especially abuse which occurs through manipulation of the child's affections and misrepresentation of social standards. Thus, while many children may suffer such symptoms that are explained by the PTSD model, the theory and the empirical findings do not support seeing PTSD symptomatology as universal to sexual abuse or as the most characteristic pattern.

There is at least one other "core-symptom" theory about the effect of sexual abuse, one that argues that the central damage is to children's self-image (Bagley & Young, 1989; Putnam, 1990). According to this view, it is the damaged self-image, not the sexual abuse per se, that leads to other difficulties. But this theory should find that disturbed self-esteem is one of the most consistent, pervasive and long-lasting effects of sexual abuse. Unfortunately, while many victims do have low self-esteem, researchers have had considerably more difficulty demonstrating this phenomenon (e.g., Mannarino, et al., in press). It is not certain whether poor self-esteem, which has been assessed primarily through self-reports, has been effectively measured. But the evidence to date does little to support the theory that self-esteem is the core element of sexual abuse traumatization.

Multi-faceted Models of Traumatization

Overall, the absence of one dominant and consistent set of symptoms argues against these core-domain theories. Rather, these data suggest that the impact of sexual abuse is more complicated because it produces multi-faceted effects. Several conceptual models are consistent with such a pattern. One model (Finkelhor & Browne, 1985) suggests that sexual abuse traumatizes children through four distinctive types of mechanisms, which account for the variety of outcomes. The four mechanisms have been termed 1) traumatic sexualization, 2) betrayal, 3) stigmatization, and 4) powerlessness. Traumatic sexualization includes a variety of processes such as the inappropriate conditioning of the child's sexual responsiveness and the socialization of the child into faulty beliefs and assumptions about sexual behavior. Betrayal includes the shattering of the child's confidence that trusted persons are interested and capable of protecting her from harm. Stigmatization covers all the mechanisms that undermine the child's positive self-image: the shame that is instilled, the ostracism the child suffers, the negative stereotypes that are acquired from the culture and immediate environment. Finally, powerlessness comprises PTSD-type mechanisms (intense fear of death or injury from an uncontrollable event) as well as the repeated frustration of not being able to stop or escape from the noxious experience or elicit help from others. These mechanisms are present to varying degrees and in different forms in different abuse scenarios.

In addition, the model proposes that certain symptoms are more closely related to certain dynamics. The sexualization symptoms have an obvious connection to the traumatic sexualization processes; self-esteem is connected to stigmatization; fears and PTSD to the powerlessness. Little research has been carried out to confirm the model due in part to its complexity, the

variety of different mechanisms posited, and the difficulty of clearly delineating and measuring them.

Other theorists have also adopted a multiple dynamics approach to account for the seeming variety of sexual abuse symptoms. Briere (in press) has developed such a model whose dynamics include: 1) negative self-evaluation, 2) chronic perception of danger or injustice, 3) powerlessness and preoccupation with control, 4) dissociative control over awareness, 5) impaired self-reference, and 6) reduction of painful internal states.

In addition to these elaborate multi-dynamic models, a different model that allows for complexity but with a very simple theory, is one that posits sexual abuse as simply a generalized stressor. In this model, the child would be likely to develop problems in whatever area he or she may have had a prior vulnerability. This model would predict a high degree of similarity between the effects of sexual abuse and the effects of other childhood stressors such as parental divorce. There is some evidence to support this view, particularly our findings that show the similarity on some symptoms between sexually abused children and other clinical groups. On the other hand, sexually abused children do tend to exhibit some characteristics (such as sexualized behaviors) that are much more common among sexually abused children than they are among other clinical groups. These types of effects argue against sexual abuse merely as a generalized stressor.

The third hypothesis states that family dysfunctions or a general maltreating environment, not the sexually abusive activities *per se*, are at the root of the trauma in most sexually abused children (Clausen & Crittenden, 1991). This model is supported by apparent similarities in the range and types of problems manifested by all abused children. However, certain evidence from the studies described in the present review argues against such a

conceptualization. First, studies show that nonabused siblings (i.e., children raised in the same dysfunctional families) show fewer symptoms than do their abused siblings (Bentovim & Boston, 1988; Lipovsky, Saunders & Murphy, 1989). In addition, the review of 25 studies presented in Table 5 consistently shows strong relationships between specific characteristics of the sexual abuse and the symptomatology in the children (e.g., Newberger, Gremy,& Waternaux, 1990). All of this argues for traumatic processes inherent in the sexual abuse itself that is independent from a generalized family dysfunction or generalized maltreating environment.

This is not to say that prior vulnerabilities, a maltreating environment, and family dysfunction do not contribute to traumatization as well. Research such as Conte and Schuerman (1987a; 1987b) demonstrates that both abuse-related factors and family dysfunction contribute to children's trauma. And, they find that over time, the abuse-related factors are less influential than are the continuing family processes such as the amount of family support for the child. This suggests a grand model of sexual abuse trauma that includes effects that are both more and less specific to sexual abuse, and that arise from both the abusive acts in particular, which also interact with prior vulnerabilities of the child, the health or toxicity of the family environment, and the social response to the discovery of abuse.

Summary

The research to date points to an array of traumatizing factors in sexual abuse, with sexualization and PTSD as frequent, but not universal, processes. The traumatic impact of the abusive acts themselves (e.g., their frequency and severity) has been established, as well as the likely contribution of other familial and environmental conditions. The role of disturbance to self-esteem

has not been as well substantiated, nor has the role of a child's prior dispositions or vulnerabilities.

This theoretical discussion has implications for clinicians as well as researchers. The range of symptoms, the lack of a single predominant symptom pattern, and the absence of symptoms in so many victims clearly suggest that diagnosis is complex. Symptoms cannot be easily used, without other evidence, to confirm the presence of sexual abuse because the effects of abuse can manifest themselves in too many ways. Certainly, the absence of symptoms also cannot be used to rule out sexual abuse. There are too many sexually abused children who are apparently asymptomatic. This finding is especially important for those conducting forensic evaluations.

It may be possible, as Corwin (1989) has argued, to find a combination of symptoms that is extremely diagnostic of sexual abuse, especially in certain subgroups of victims (for example, preschool children with certain kinds of sexualized behavior, and post-traumatic play), and research toward such a screening device may be warranted. But the evidence suggests that such a device would identify only a small percentage of victims, and that one could conclude nothing at all from the absence of such symptom patterns.

Although conclusions such as these are useful, we also think this discussion highlights a glaring inadequacy in the literature: a nearly universal absence of theoretical underpinnings in the studies being done on this subject to date. Studies evince a great deal of concern about the effects of sexual abuse but disappointingly little concern about why the effects occur. Few studies are undertaken to establish or confirm any theory or explanation about what causes children to be symptomatic. Rather, most simply document and count the existence of symptoms and some of their obvious correlates. This accounts for one of the main reasons that, in spite of

numerous studies since the Browne & Finkelhor (1986) review, there have been few theoretical advances.

Future studies need to turn much more to the development and confirmation of theory. Those who believe that different mechanisms result in different symptoms need to begin to search for such mechanisms. For example, if dissociation is theorized as an acquired strategy for escaping from unpleasant emotions, then researchers need to document the presence of the cognitive, affective and physiological underpinnings to this mechanism and relate it to the trauma itself. By contrast, those who see sexual abuse as a generalized stressor need to conduct studies that relate the effects of sexual abuse to pre-existing vulnerabilities in coping. The dialogue about variables that mediate the effects of abuse need to be enriched and ideas forwarded about how to study and test their existence. This process of improving research might be assisted when the sexual abuse researchers join forces with those who study related symptomatology in nonabused children. The only place that this has happened is in the work generated by the importation of PTSD theory into the field, and it is only by further developing this cross-fertilization that advances can continue.

Methodological Issues and Directions for Future Research

Although the studies reviewed here signal an enormous improvement in methodology, this review highlights many major areas where current designs could be improved or refined. Some more specific suggestions for improvement are listed below.

1. Improving measures of impact.

The literature on effects has relied extensively on parent-completed checklists of children's symptomatology, and particularly the Child Behavior

Checklist. However, two sets of findings have raised concern about the validity of these measures. One shows that mothers' judgments about their children's symptoms are highly related to their own level of distress and willingness to believe their children (Everson et al., 1989; Newberger et al., 1990). A second shows poor association between parents and children's own reports (Cohen & Mannarino, 1988; Kelly & Ben-Meir, in press).

It does seem plausible that parents might be biased reporters, especially in the context of a family problem like sexual abuse where parents can experience strong feelings of guilt or ambivalence about a child's disclosure. But other findings suggest that parent reports are nonetheless relatively valid and, in the context of currently used instruments, probably better than their children's reports. For example, while depressed mothers reported more child symptoms than non-depressed mothers on the CBCL, the assessments still differentiated disturbed and non-disturbed children, when depression was statistically controlled for (Friedlander, Weiss & Taylor, 1986). Moreover, mothers' ratings tended to be more similar to and correlated better with therapists' and teachers' ratings than to those of their children (Shapiro, Leifer, Martone & Kassem, 1990; Tong, Oates & McDowell, 1987). It appears from several studies (Cohen & Mannarino, 1988; Shapiro, et al., 1990) that children's self-reports seem to minimize problems like depression or low self-esteem that are noted by parents and therapists. Why this is so is not clear.

One clear implication from this is that studies should not rely on children's self-reports alone. Ideally, studies should try to obtain assessments from multiple sources, as the recent Waterman, et al. (in press) study did. In addition, research needs to be undertaken to improve the validity of parent reports and especially, if possible, children's self assessments.

A second concern, raised in part by the issue of seemingly asymptomatic children, is whether the instruments currently being used are sensitive enough to measure consistently and accurately the trauma of sexual abuse. Several groups of researchers, recognizing particularly the limitations of the CBCL, have branched out in attempts to develop such sensitive measures. Friedrich, et al., (in press) have greatly expanded CBCL symptom items in the domain of sexuality. Lanktree and Briere (1991) are attempting to adapt the Trauma Symptom Checklist, highly successful in differentiating sexually abused adults, for use with children. Wolfe and colleagues (1989) have developed scales to measure more sensitively PTSD-type symptomatology. Such efforts need to be continued and elaborated.

2. Greater differentiation by age and gender.

Many studies have included subjects from very broad age ranges (such as 3 to 18), and grouped them together to discuss symptoms. Similarly, studies have also grouped boys and girls together. As we have shown in Table 4, this grouping together of all ages can mask particular developmental patterns to the occurrence of some symptoms. At a minimum, future research should divide children into preschool, school-age, and adolescent age ranges when reporting data on percentage of victims with symptoms. It would be better to provide even more detail on the effect of age at assessment on the manifestation of symptoms. A parallel effort is needed in regard to gender.

3. Expanding the analysis of intervening variables.

This review has confirmed that abuse-related variables are associated with outcome, and thus should be regularly included in analyses. However, many other factors probably are influential as well, and more focus should be placed on understanding their role. These include such things as children's intelligence, coping skills, prior adjustment and cognitive interpretation of

the abuse. It also includes children's family and social environment, as well as the actions taken by professionals in response to their disclosures. Another factor which needs to be regularly taken into account is time elapsed since the end of the abuse. In some samples, several years might have elapsed since the abuse ended and the child was assessed, and during this time symptoms may abate.

4. Longitudinal Research and Developmental Theory.

One approach that may help us to do more theory-driven research, as well as to respond to the methodological issues raised here, is to take more of a developmental perspective. Current research has tended to focus on assessments of trauma at a specific age or point in time. But we need to know more about the course of symptomatology and recovery over time. The symptomatology of a 15-year old molested at age 4 may be different from a 15-year old molested at age 14. Symptoms may tend to reoccur at different developmental stages and asymptomatic children may later become symptomatic. Even in the absence of funding, any research on outcomes should at least pave the way for possible later follow-up by gaining permission to recontact subjects and by recording data that will facilitate such research in the future.

Such longitudinal studies will encourage the use of theoretical perspectives such as the life-span developmental approach for studying sexual abuse (see Baltes, 1987; Kendall-Tackett, 1991b; Starr, MacLean & Keating, 1991). One of the key postulates of that approach is that development is life-long. This means that children and adults are dynamic, continually growing and adapting to their environments. Current sexual abuse research tends to take a snap-shot view of development, looking at behavior or outcomes only once. Understanding that development is life-long, and studying sexual abuse

within this context, may eventually solve the riddle of the asymptomatic child and give us a more complete sense of how children process trauma.

Another postulate is that development is multi-dimensional, which means that at any given time, changes are occurring in a person's behavior, thoughts or emotions at every developmental stage. Research on the effects of sexual abuse on children tends to be unidimensional, in that it focuses on predominently negative outcomes. Rare is the study that also considers the coping mechanisms children and adults use, and can explain why some survive or even thrive in extremely noxious circumstances, while others do not.

Another tenet of the life-span approach is that development occurs within a context. This context can be the family situation prior to disclosure, the ages during which the abuse occurred (and the child's subsequent interpretation of the abuse at various ages), the kinds of support available both within the family and from the community at large, and the historical context that surrounds the abuse and disclosure (e.g., disclosures prior to the increase in public awareness vs. after this increase).

Studies conducted with this type of conceptual framework could readily incorporate the many intervening variables that modify the effects of abuse. In addition, it offers a richer description of why children and adults manifest certain symptoms at each developmental stage and how people cope with psychic trauma.

In summary, the above recommendations should encourage researchers to use more sophisticated research designs and develop more complicated models of the effects of abuse. As a field, we have looked in isolation at many of the factors that are related to impact of abuse. Now it is time for us to combine them into a more realistic model of how children are affected by abuse. We are now ready to move beyond the question of how sexual abuse affects children

and to start asking why. This type of knowledge would provide helpful theoretical information about the mechanism and processing of psychological trauma. It would also provide guidelines about where we can effectively intervene to ameliorate the effects of sexual abuse and aid children in their healing process.

Notes

1) Note that when we refer to victims, we mean victims who have come to public attention. The findings from this review cannot be generalized to unreported victims for whom impact may be substantially different. One controversial study of unreported victims from the Netherlands (Sandfort, 1982; 1984) claims that certain (primarily adolescent) boys have relationships with adult pedophiles which they describe in positive terms and appear to have no negative effects. Because these boys were nominated for the research by the pedophiles themselves, who were involved in a pedophile advocacy group, it is difficult to know to what group of children such findings could be generalized.

2) Internalizing and externalizing are composite symptoms found on the Child Behavior Checklist. Internalizing is withdrawn behavior, depression, fearfulness, inhibition and overcontrol. Externalizing includes aggression, antisocial and undercontrolled behavior.

3) Criteria for including studies in this review were as follows: they reported an exact t value, or F value from a univariate ANOVA; they reported degrees of freedom; and there was only one degree of freedom in the numerator.

4) Eta allows us to examine the effects of sexual abuse apart from sample size, and therefore provides a standard coefficient by which to compare findings (Rosenthal, 1984). In addition eta is comparable to a Pearson r and therefore provides an index of the strength of the relationship between sexual abuse status and manifestation of a symptom. Eta-sq tells us how much of the variance was accounted for by the child's sexual abuse status.

References

Adams-Tucker, C. (1982). Proximate effects of sexual abuse in childhood: A report on 28 children. American Journal of Psychiatry, 139, 1252-1256.

Bagley, C., & Young, L. (1989). Depression, self-esteem, and suicidal behavior as sequels of sexual abuse in childhood: Research and therapy. In M. Rothery and G. Cameron (Eds.), Child maltreatment: Expanding our concept of healing. (pp. 183-209). Hillsdale, NJ. Erlbaum.

Baltes, P.B. (1987). Theoretical propositions of live-span developmental psychology: On the dynamics between growth & decline. Developmental Psychology, 23, 611-626.

Basta, S.M., & Peterson, R.F. (1990). Perpetrator status and the personality characteristics of molested children. Child Abuse and Neglect, 14, 555-566.

Beitchman, J.H., Zuckkerr, K.J., Hood, J.E., daCosta, G.A., & Akman, D. (1991). A review of the short-term effects of child sexual abuse. Child Abuse & Neglect, 15, 537-556.

Bentovim, A., & Boston, P. (1988). Sexual abuse-basic issues-characteristics of children and families. In A. Bentovim, A. Elton, J. Hildebrand, M. Tranter, & E. Vizard (Eds.). Child sexual abuse within the family: Assessment and treatment. (pp. 16-33). London: Wright.

Bentovim, A., vanElberg, A., & Boston, P. (1988). The results of treatment. In A. Bentovim, A. Elton, J. Hildebrand, M. Tranter, & E. Vizard (Eds.), Child sexual abuse within the family: Assessment and treatment (pp. 252-268). London: Wright.

Berliner, L. (in press). The effects of sexual abuse on children. Violence Update.

Briere, J. (in press). Child Abuse Trauma: Theory and treatment of the lasting effects.

Browne, A. & Finkelhor, D. (1986). The Impact of Child Sexual Abuse: A Review of the Research. Psychological Bulletin, 99(1), 66-77.

Burgess, A., Hartman, C., McCausland, M., & Powers, P. (1984). Response patterns in children and adolescents exploited through sex rings and pornography. American Journal of Psychiatry, 141(5), 656-662.

Burns, N., Williams, L.M., & Finkelhor, D. (1988). Victim impact. In D. Finkelhor, L.M. Williams, & N. Burns (Eds.). Nursery Crimes: Sexual abuse in daycare. (pp. 114-137). Newbury Park, CA:Sage

Caffaro-Rouget, A., Lang, R. A., & vanSanten, V. (1989). The impact of child sexual abuse. Annals of Sex Research, 2, 29-47.

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Clausen, A.H., & Crittenden, P.M. (1991). Physical and psychological maltreatment: Relations among types of maltreatment. Child Abuse & Neglect, 15, 5-18.

Cohen, J.A., & Mannarino, A.P. (1988). Psychological symptoms in sexually abused girls. Child Abuse & Neglect, 12, 571-577.

Conte, J.R. (1991). Behavior of sexually abused children at intake/disclosure and 12-months later. Unpublished manuscript.

Conte, J., & Schuerman, J. (1987a). Factors associated with an increased impact of child sexual abuse. Child Abuse and Neglect, 11, 201-211.

Conte, J., & Schuerman, J. (1987b). The effects of sexual abuse on children: A multidimensional view. Journal of Interpersonal Violence, 2(4), 380-390.

Corwin, D.L. (1989). Early diagnosis of child sexual abuse: Diminishing the lasting effects. In G.E. Wyatt & G.J. Powell (Eds.). Lasting effects of child sexual abuse, (pp. 251-270). Newbury Park, CA: Sage.

Daro, D. (1988). Confronting child abuse: Research for effective program design. New York: Free Press.

Deblinger, E., McLeer, S.V., Atkins, M.S., Ralphe, D., & Foa, E. (1989). Post-traumatic stress in sexually abused, physically abused, and nonabused children. Child Abuse & Neglect, 13, 403-408.

Einbender, A.J., & Friedrich, W.N. (1989). Psychological functioning and behavior of sexually abused girls. Journal of Consulting and Clinical Psychology, 57(1), 155-157.

Elwell, M.E., & Ephross, P.H. (1987). Initial reactions of sexually abused children. Social Casework, 68, 109-116.

Erickson, M.F. (1986, August). Young sexually abused children: Socio-emotional development and family interaction. Paper presented at the meetings of the American Psychological Association, Washington, D.C.

Everson, M.D., Hunter, W.M., & Runyan, D.K. (1991, January). Adolescent adjustment after incest: Who fares poorly? Paper presented at the San Diego Conference on Responding to Child Maltreatment, San Diego, CA.

Everson, M.D., Hunter, W.M., Runyan, D. K., Edelsohn, G.A., & Coulter, M.L. (1989). Maternal support following disclosure of incest. American Journal of Orthopsychiatry, 59, 197-207.

Feltman, R.I. (1985). A controlled correlational study of the psychological functioning of female paternal incest victims. Unpublished dissertation.

Figley, C.R. (1986). Trauma and its wake, Vol. II: Traumatic stress theory, research, & intervention. New York: Bruner/Mazel.

Finkelhor, D. (1987). The trauma of child sexual abuse: Two models. Journal of Interpersonal Violence, 2, 348-366.

Finkelhor, D. & Browne, A. (1985). The traumatic impact of child sexual abuse: A conceptualization. American Journal of Orthopsychiatry, 55, 530-541.

Finkelhor, D., Hotaling, G., Lewis I.A., & Smith, C. (1990). Sexual abuse in a national study of adult men and women: Prevalence, characteristics, and risk factors. Child Abuse & Neglect, 14, 19-28.

Frederick, C.J., (1986). Post-traumatic stress disorder and child molestation. In A. Burgess & C. Hartment (Eds.) Sexual exploitation of clients by mental health professionals. New York: Praeger.

Friedlander, S., Weiss, D.S., & Taylor, J. (1986). Assessing the influence of maternal depression on the validity of the Child Behavior Checklist. Journal of Abnormal Child Psychology, 14, 123-133.

Friedrich, W., Beilke, R., & Urquiza, A. (1987). Children from sexually abusive families: A behavioral comparison. Journal of Interpersonal Violence, 2(4), 391-402.

Friedrich, W.N., Beilke, R.L., & Urquiza, A.J. (1988). Behavior problems in young sexually abused boys. Journal of Interpersonal Violence, 3(1), 21-28.

Friedrich, W.N., Grambasch, P., Damon, L., Hewitt, S.K., Koverola, C., Lang, R., & Wolfe, V. (in press). The child sexual behavior inventory: Normative and clinical comparisons. Journal of Consulting & Clinical Psychology.

Friedrich, W.N., & Luecke, W.J. (1988). Young school-age sexually aggressive children. Professional Psychology: Research and Practice, 19 (2), 155-164.

Friedrich, W.N., & Reams, R.A. (1987). Course of psychological symptoms in sexually abuse young children. Psychotherapy, 24, 160-170.

Friedrich, W.N., Urquiza, A.J., & Beilke, R.L. (1986). Behavior problems in sexually abused young children. Journal of Pediatric Psychology, 11 (1), 47-57.

Gale, J., Thompson, R.J., Moran, T., & Sack, W.H. (1988). Sexual abuse in young children: Its clinical presentation and characteristic patterns. Child Abuse & Neglect, 12, 163-170.

Gomes-Schwartz, B., Horowitz, J.M., Cardarelli, A.P., & Sauzier, M. (1990). The aftermath of child sexual abuse: 18 months later. In B. Gomes-Schwartz, J.M. Horowitz, & A.P. Cardarelli (Eds.), Child sexual abuse: The initial effects. (pp. 132-152). Newbury Park, CA: Sage.

Gomes-Schwartz, B., Horowitz, J.M., & Sauzier, M. (1985). Severity of emotional distress among sexually abused preschool, school-age, and adolescent children. Hospital and Community Psychiatry, 36(5), 503-508.

Goodman, G.S., Taub, E.P., Jones, D.P.H., England, P., Port, L.K., Rudy, L., & Prado, L. (in press). Emotional effects of criminal court testimony on child sexual assault victims. Monographs of the Society for Research in Child Development.

Hewitt, S.K., & Friedrich, W.N. (1991, January). Preschool children's responses to alleged sexual abuse at intake and one-year follow up. Paper presented at the meetings of the American Professional Society on the Abuse of Children, San Diego, CA.

Jampole, L., & Weber, M. K. (1987). An assessment of the behavior of sexually abused and nonsexually abused children with anatomically correct dolls. Child Abuse & Neglect, 11, 187-192.

Kelly, R.J. (in press, a). Overall level of distress. In J. Waterman, R.J. Kelly, J. McCord & M.K. Oliveri (Eds.) Reported ritualistic and non-ritualistic sexual abuse in preschools: Effects and mediators.

Kelly, R.J. (in press, b). Effects on Sexuality. In J. Waterman, R.J. Kelly, J. McCord & M.K. Oliveri (Eds.) Reported ritualistic and non-ritualistic sexual abuse in preschools: Effects and mediators.

Kelly, R.J. & Ben-Meir (in press). Emotional effects. In J. Waterman, R.J. Kelly, J. McCord & M.K. Oliveri (Eds.) Reported ritualistic and non-ritualistic sexual abuse in preschools: Effects and mediators.

Kelley, S.J. (1989). Stress responses of children to sexual abuse and ritualistic abuse in day care centers. Journal of Interpersonal Violence, 4, 502-513.

Kendall-Tackett, K.A. (1991a). Characteristics of abuse that influence when adults molested as children seek treatment. Journal of Interpersonal Violence, 6(4).

Kendall-Tackett, K.A. (1991b). Child sexual abuse from a life-span perspective: A conceptual model for future research. Manuscript under review.

Kolko, D.J., Moser, J.T., & Weldy, S.R. (1988). Behavioral/emotional indicators of sexual abuse in child psychiatric inpatients: A controlled comparison with physical abuse. Child Abuse & Neglect, 12, 529-541.

Lanktree, C., & Briere, J. (1991, January). Early data on the Trauma Symptom Checklist for Children (TSC-C). Paper presented at the meetings of the American Professional Society on the Abuse of Children, San Diego, CA.

Lindberg, F., & Distad, L. (1985). Survival responses to incest: Adolescents in crisis. Child Abuse & Neglect, 9, 521-526.

Lipovsky, J.A., Saunders, B.E., & Murphy, S.M. (1989). Depression, anxiety, & behavior problems among victims of father-child sexual assault and nonabused siblings. Journal of Interpersonal Violence, 4, 452-468.

Lusk, (in press). Cognitive and school-related effects. In J. Waterman, R.J. Kelly, J. McCord & M.K. Oliveri (Eds.) Reported ritualistic and non-ritualistic sexual abuse in preschools: Effects and mediators.

Mannarino, A.P., & Cohen, J.A. (1986). A clinical-demographic study of sexually abused children. Child Abuse & Neglect, 10, 17-23.

Mannarino, A.P., Cohen, J.A., & Gregor, M. (1989). Emotional and behavioral difficulties in sexually abused girls. Journal of Interpersonal Violence, 4(4), 437-451.

Mannarino, A.P., Cohen, J.A., Smith, J.A., & Moore-Motily, S. (in press). Six and twelve month follow-up of sexually abused girls. Journal of Interpersonal Violence.

McGrath, E., Keita, G.P., Strickland, B.R., & Russo, N.F. (1990). Women and depression: Risk factors & treatment issues. Washington, DC: American Psychological Association.

McLeer, S.V., Deblinger, E., Atkins, M.S., Foa, E.B., Ralphe, D.L. (1988). Post-traumatic stress disorder in sexually abused children. American Academy of Child and Adolescent Psychiatry, 650-654.

Mian, M., Wehrspann, W., Klajner-Diamond, H., LeBaron, D., & Winder, C. (1986). Review of 125 children 6 years of age and under who were sexually abused. Child Abuse & Neglect, 10, 223-229.

Morrow, K.B., & Sorell, G.T. (1989). Factors affecting self-esteem, depression, and negative behaviors in sexually abused female adolescents. Journal of Marriage and the Family, 51, 677-686.

Newberger, C.M., Gremy, I., & Waternaux, C. (1990). Mothers and children following sexual abuse disclosure: Connections, boundaries, and the expression symptomatology. Unpublished manuscript, Children's Hospital, Boston, MA.

Orr, D.P., & Downes, M.C. (1985). Self-concept of adolescent sexual abuse victims. Journal of Youth and Adolescence, 14(5), 401-410.

Putnam, F.W. (1990). Disturbances of 'self' in victims of childhood sexual abuse. In R. Kluft (Ed.) Incest-related syndromes of adult psychopathology. (pp. 113-131). Washington, DC: American Psychiatric Association.

Pynoos, R.S., & Eth, S. (1985). Children traumatized by witnessing acts of personal violence: Homicide, rape, or suicide behavior. In S. Eth & R.S. Pynoos (Eds.), Post-traumatic stress disorder in children (pp. 19-43). Los Angeles, CA: American Psychiatric Association.

Rimsza, M.E., & Berg, R.A. (1988). Sexual abuse: Somatic and emotional reactions. Child Abuse & Neglect, 12, 201-208.

Rosenthal, R. (1984). Meta-analytic procedures for social research. Newbury Park: Sage.

Runyan, D.K., Everson, M.D., Edelsohn, G.A., Hunter, W.M., & Coulter, M.L. (1988). Impact of legal intervention on sexually abused children. Journal of Pediatrics, 113, 647-653.

Sandfort, T. (1982). The sexual aspects of paedophile relations. Amsterdam: Pan/Spartacus.

Sandfort, T. (1984). Sex in pedophiliac relationships: An empirical investigation among a non-representative group of boys. Journal of Sex Research, 20, 123-142.

Shapiro, J.P., Leifer, M., Martone, M.W., & Kassem, L. (1990). Multimethod assessment of depression in sexually abused girls. Journal of Personality Assessment, 55(182), 234-248.

Sirles, E.A., Smith, J.A., & Kusama, H. (1989). Psychiatric status of intrafamilial child sexual abuse victims. Journal of the American Academy of Child Adolescent Psychiatry, 28(2), 225-229.

Starr, R.H., MacLean, D.J., & Keating, D.P. (1991) Life-Span Development Outcomes of Child Maltreatment. In Starr and Wolfe (Eds.) The Effects of Child Abuse & Neglect: Issues and Research, (pp. 1-32). New York: The Guildord Press.

Tong, L., Oates, K., & McDowell, M. (1987). Personality development following sexual abuse. Child Abuse & Neglect, 11, 371-383.

Waterman, J. (in press). Mediators of effects on children: What enhances optimal functioning and promotes healing? In J. Waterman, R.J. Kelly, J. McCord, M.K. Oliveri (Eds.) Reported ritualistic and nonritualistic sexual abuse in preschools: Effects and mediators.

Waterman, J., Kelly, R.J., McCord, J., & Oliveri, M.K. (in press). Reported ritualistic and nonritualistic sexual abuse in preschools: Effects and mediators.

White, S., Halpin, B.M., Strom, G.A., & Santilli, G. (1988). Behavioral comparisons of young sexually abused, neglected, and nonreferred children. Journal of Clinical Child Psychology, 17(1), 53-61.

White S., Strom, G.A., Santilli, G., & Halpin, B. (1986). Interviewing young sexual abuse victims with anatomically correct dolls. Child Abuse & Neglect, 10, 519-529.

Williams, L., (1991). The impact of court testimony on young children: Use of protective strategies in day care cases. Unpublished manuscript, Family Research Laboratory, University of New Hampshire.

Wolfe, V.V., Gentile, C., & Wolfe, D.A. (1989). The impact of sexual abuse on children: A PTSD formulation." Behavior Therapy, 20, 215-228.

Valliere, P.M., Bybee, D., & Mowbray, C.T. (1988, April). Using the Achenbach Child Behavior Checklist in child sexual abuse research: Longitudinal & comparative analysis. Paper presented at the National Symposium on Child Victimization, Anaheim, CA.

Zivney, O.A., Nash, M.R., & Hulsey, T.L. (1988). Sexual abuse in early versus late childhood: Differing patterns of pathology as revealed on the Rorschach. Psychotherapy, 25, 99-106.

Table 1

Sexually Abused vs Non-sexually Abused (NSA) Children--

Nonclinical and Clinical Comparison Groups

Symptom	Nonclinical		Clinical			
	Total N of studies	SA>NSA/ N of studies	SA>NSA	No Diff (Number of studies)	SA< NSA	Total N
ANXIETY	14	5/8	1	2	0	3
FEAR	6	5/5	1	0	2	3
PTSD						
nightmares	3	1/1	1	--	--	1
general	5	1/1	1	0	0	1
DEPRESSION						
depression	17	10/11	1	2	2	5
withdrawn	14	11/11	1	1	3	5
suicidal	7	0/1	--	--	--	--
POOR SELF ESTEEM	11	3/6	--	--	--	--
SOMATIC COMPLAINTS	16	9/11	1	3	3	7
MENTAL ILLNESS						
neurotic	3	2/2	0	2	2	4
other	12	6/7	0	4	2	6
AGGRESSION						
aggression/ antisocial	15	10/11	0	1	6	7
cruel	2	2/2	0	1	0	1
delinquent	7	6/6	0	1	3	4

Table 1, cont'd

Symptom	Nonclinical		Clinical			
	Total N of studies	SA>NSA/ N of studies	SA>NSA	No Diff (Number of studies)	SA< NSA	Total N
SEXUALIZED BEHAVIOR						
inapprop. sexual behavior	23	8/8	6	2	0	8
promiscuous	2	---	--	--	--	--
SCHOOL/LEARNING PROBLEMS	13	5/6	0	1	2	3
BEHAVIOR PROBLEMS						
hyperactivity	9	5/7	0	1	4	5
regressive/ immaturity	7	2/2	1	0	1	2
illegal acts	4	--	--	--	--	--
running away	6	1/1	--	--	--	--
general	5	2/2	--	--	--	--
SELF-DESTRUCTIVE BEHAVIOR						
substance abuse	5	--	--	--	--	--
self-injurious behavior	4	1/1	--	--	--	--
COMPOSITE SYMPTOMS						
internalizing	10	8/8	0	2	1	3
externalizing	11	7/7	0	1	2	3

Table 2

Average Effect Sizes for Seven Symptoms of Sexual Abuse

Symptom	Effect Sizes			
	Number of Studies	Range of Eta-Sq	Average Eta	Average Eta-Sq
Aggression	4	.37-.71	.66	.43
Anxiety	3	.01-.28	.39	.15
Depression	6	.06-.68	.59	.35
Externalizing	5	.08-.52	.57	.32
Internalizing	6	.11-.70	.62	.38
Sexualized Behavior	5	.19-.77	.66	.43
Withdrawal	6	.12-.68	.60	.36

Table 3

Percentage of Sexually Abused Children with Symptoms

Symptom	% with symptom	Range of percentages	Number of studies	Number of subjects
ANXIETY	28%	14-68%	8	688
FEAR	33%	13-45%	5	477
PTSD				
nightmares	31%	18-68%	5	605
general PTSD	53%	20-77%	4	151
DEPRESSION				
depression	28%	19-52%	6	753
withdrawn	22%	4-52%	5	660
suicidal	12%	0-45%	6	606
POOR SELF ESTEEM	35%	4-76%	5	483
SOMATIC COMPLAINTS	14%	0-60%	6	540
MENTAL ILLNESS				
neurotic	30%	20-38%	3	113
other	6%	0-19%	3	533
AGGRESSION				
aggression/ antisocial	21%	13-50%	7	658
delinquent	8%	8%	1	25
SEXUALIZED BEHAVIOR				
inapprop. sexual behavior	28%	7-90%	13	1353
promiscuous	38%	35-48%	2	128

Table 3, cont'd

Symptom	% with symptom	Range of percentages	Number of studies	Number of subjects
SCHOOL/LEARNING PROBLEMS	18%	4-32%	9	652
BEHAVIOR PROBLEMS				
hyperactivity	17%	4-28%	2	133
regressive/immaturity	14%	14-44%	6	626
illegal acts	11%	8-27%	4	570
running away	15%	2-63%	6	641
general	37%	28-62%	2	66
SELF-DESTRUCTIVE BEHAVIOR				
substance abuse	11%	2-46%	5	786
self-injurious behavior	15%	1-71%	3	497
COMPOSITE SYMPTOMS				
internalizing	30%	4-48%	3	295
externalizing	23%	6-38%	3	295

Table 4

Percentage of Children with Symptoms by Age Group

Symptom	Age Groups: Preschool	School-age	Adolescent	Mixed
	% of Subjects (Number of studies/Number of subjects)			
ANXIETY	61% (3/149)	23% (2/66)	8% (1/3)	18% (4/470)
FEAR	13% (1/30)	45% (1/58)	--	31% (2/389)
PTSD				
nightmares	55% (3/183)	47% (1/17)	0 (1/3)	19% (2/402)
general PTSD	77% (1/71)	--	--	32% (3/80)
DEPRESSION				
depression	33% (3/149)	31% (2/66)	46% (3/129)	18% (2/409)
withdrawn	10% (1/30)	36% (1/58)	45% (2/126)	15% (3/446)
suicidal	0% (1/37)	--	41% (3/172)	3% (2/397)
POOR SELF ESTEEM	0% (1/25)	6% (1/17)	33% (1/3)	38% (4/438)
SOMATIC COMPLAINTS	13% (2/54)	--	34% (1/44)	12% (2/442)
MENTAL ILLNESS				
neurotic	20% (1/30)	38% (1/58)	24% (1/25)	--
other	0% (1/37)	19% (1/58)	16% (2/69)	3% (1/369)

Table 4, cont'd

Symptom	Age Groups: Preschool	School-age	Adolescent	Mixed
	% of Subjects (Number of studies/Number of subjects)			
AGGRESSION				
aggression/ antisocial	27% (3/154)	45% (1/58)	--	14% (3/446)
delinquent	--	--	8% (1/25)	--
SEXUALIZED BEHAVIOR				
inapprop. sexual behavior	35% (6/334)	6% (1/17)	0% (1/3)	24% (7/999)
promiscuous	--	--	38% (2/128)	--
SCHOOL/LEARNING PROBLEMS	19% (2/107)	31% (1/58)	23% (2/69)	17% (2/418)
BEHAVIOR PROBLEMS				
hyperactivity	9% (2/55)	23% (2/75)	0% (1/3)	--
regressive/ immaturity	36% (4/159)	39% (2/75)	0% (1/3)	1% (2/389)
illegal acts	--	--	27% (1/101)	8% (3/469)
running away	--	--	45% (3/172)	4% (3/469)
general	62% (1/17)	--	--	28% (1/49)

Table 4, cont'd

Symptom	Age Groups: Preschool	School-age	Adolescent	Mixed
	% of Subjects (Number of studies/Number of subjects)			
SELF-DESTRUCTIVE BEHAVIOR				
substance abuse	--	--	53% (2/128)	2% (3/658)
self-injurious behavior	--	--	71% (2/128)	1% (1/369)
COMPOSITE SYMPTOMS				
internalizing	48% (1/69)	--	--	24% (2/226)
externalizing	38% (1/69)	--	--	23% (2/226)

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Table 5

Influence of Intervening Variables.

Variable	Number of Studies		Direction of Findings
	N w/ signif difference in impact	Total N	
AGE OF CHILD at assessment	7	10	Older children are more symptomatic in five studies.
at onset	1	3	Not clear.
SEX OF VICTIM	5	8	Different patterns of symptoms for boys & girls.
PENETRATION/SEVERITY	6	10	Oral, anal, or vaginal penetration related to increased symptoms.
FREQUENCY	4	6	Higher frequency related to increased symptoms.
DURATION	5	7	Longer duration related to increased symptoms.
PERPETRATOR	7	9	Increased symptoms for perpetrators close in relationship.
NUMBER OF PERPETRATORS	1	3	Not clear.
LACK OF MATERNAL SUPPORT	3	3	Lack of support related to increased symptoms.
FORCE	5	6	Use of force related to increased symptoms.

Table 5, cont'd

Variable	Number of Studies		Direction of Findings
	N w/ signif difference in impact	Total N	
TIME ELAPSED SINCE LAST ABUSIVE INCIDENT	1	3	Not clear.
CHILDREN'S ATTITUDES & COPING STYLE	2	2	Negative outlook and coping style related to increased symptoms.

APPENDIX

Studies on the Effects of Sexual Abuse on Children

AUTHORS	AGE V	#V	SOURCE V	AGE C	#C	SOURCE C
Adams-Tucker, 1982	2-16	28	SAT/I/E	--	--	--
Basta & Peterson, 1990	6-10	32	I/E	6-10	16	NA-Com.
Bentovim & Boston, 1988; Bentovim, vanElberg, & Boston, 1988	2-16	411	SAT/I/E	2-16	362	NA Sibs.
Burgess, Hartman, McCausland & Powers, 1984	6-16	46	SAT/E*	--	--	--
Burns, Williams, & Finkelhor, 1988	2-5	87	SAT/DC/E	--	--	--
Caffaro-Rouget, Lang & VanSanten, 1989	1-18	240	SAT I/E	2-18	113	NA-Com.
Cohen & Mannarino, 1988	6-12	24	SAT I/E	--	--	--
Conte & Schuerman, 1987 a & b	4-17	369	SAT I/E	4-17	318	NA-Com.
Deblinger, McLeer, Atkins, Ralphe & Foa, 1989	3-13	29	IPT I/E	3-13 3-13	29 29	PA/IPT NA/IPT
Einbender & Friedrich, 1989	6-14	46	SAT I/E	6-14	46	NA-Com.
Elwell & Ephross, 1987	5-12	20	SAT/I/E	--	--	--
Erickson, 1986	4-6	11	HRI	4-6	67	NA-Same Group
Everson, Hunter, Runyan, Edelsohn, & Coulter, 1989	6-17	88	SAT I/E	--	--	--
Everson, Hunter & Runyan, 1991	11-17	44	SAT I/E	--	--	--
Feltman, 1985	10-17	31	SAT I	10-17	24	NA-OPT
Friedrich, Beilke & Urquiza, 1987	3-12	93	SAT I/E	3-12	64 78	NA-OPT NA-COM
Friedrich, Beilke & Urquiza, 1988	3-8	33	SAT I/E	--	--	--
Friedrich & Luecke, 1988	4-11 5-13	22 22	SAT I/E** SAT I/E+	--	--	--
Friedrich & Reams, 1987	3-7	8	SAT I/E	--	--	--
Friedrich, Urquiza & Beilke, 1986	3-12	85	SAT I/E	Norms	--	--

APPENDIX

Studies on the Effects of Sexual Abuse on Children

AUTHORS	AGE V	#V	SOURCE V	AGE C	#C	SOURCE C
Gale, Thompson, Moran & Sack, 1988	<7	37	SAT I/E	<7	35 13	NA-OPT PA-OPT
Gomes-Schwartz, Horowitz & Sauzier, 1985; Gomes-Schwartz, Horowitz, Cardarelli, & Sauzier, 1990	4-18	113	SAT I/E	Clinical and nonclinical norms		
Jampole & Weber, 1987	3-8	10	SAT/NR	3-8	10	NA-Com.
Kelly, in press a & b Kelly & Ben-Meir, in press; Lusk, in press	4-14 15	69/	RSA/SA/E	5-14	32	NA-Daycare
Kelley, 1989	4-11	32 35	DC RSA/E	4-11	67	NA-Daycare
Kolko, Moser & Weldy 1988	5-14	7 22	SA/IPT/I/E SA & PA	5-14 5-14	44 30	NA-IPT PA-IPT
Lindberg & Distad, 1985	12-18	27	CH/I	--	--	--
Lipovsky, Saunders, & Murphy, 1989	M=12.2	100	SAT/I	M=12.3	100	NA Sibs.
Mannarino & Cohen, 1986	3-16	45	SAT/I/E	--	--	--
Mannarino, Cohen & Gregor, 1989	6-12	94	SAT/I/E	6-12	89 75	NA-OPT NA-COM
McLeer, Deblinger, Atkins, Foa & Ralphe, 1988	3-16	31	SAT/I/E	--	--	--
Mian, Wehrspann, Klajner-Diamond, LeBaron & Winder, 1986	<6	125	CR/I/E	--	--	--
Morrow & Sorrell, 1989	12-18	101	SAT/I	--	--	--
Newberger, Gremy & Waternaux, 1990	6-12	49	SAT/I	--	--	--
Orr & Downes, 1985	9-15	20	SAT/IE	9-15	20	NA-ER pop
Rimsza, Berg & Locke, 1988	2-17	72	SAT/I/E/ CR	2-17	72	NA/Clinic/CR
Runyan, Everson, Edelsohn, Hunter & Coulter, 1988	6-17	75	SAT/I/E	--	--	--
Shapiro, Leifer, Martone & Kassem, 1990	5-16	53	SAT/I/E	3-16	70	NA-OPT

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APPENDIX

Studies on the Effects of Sexual Abuse on Children

AUTHORS	AGE V	#V	SOURCE V	AGE C	#C	SOURCE C
Shapiro, Leifer, Martone & Kassem, 1991	5-16	53	SAT/I/E	--	--	--
Sirles, Smith & Kusama, 1989	2-17	207	SAT/I/E	--	--	--
Tong, Oates & McDowell, 1987	3-16	49	SAT/I/E	3-16	49	NA-Com.
White, Strom, Santilli & Halpin, 1986	2-6	25	SAT/NR	2-6	25	NA-Com.
White, Halpin, Strom & Santilli, 1988	2-6	17	SAT/NR	2-6	23/18	NA-Com./Neglect
Wolfe, Gentile & Wolfe, 1989	5-16	71	SAT/I/E	--	--	--
Valliere, Bybee, & Mowbray, 1988	4-13	34	DC/E	5-11	136	NA-Com. Norms
Zivney, Nash & Hulsey, 1988	3-16	80	SAT/I/E	3-16	70	NA-OPT

C = comparison group
CH = children's home
CR = chart review
Com = community
DC = sexually abused in day care
HRI = high-risk infant follow-up
I/E = intra- and extrafamilial abuse
IPT = in-patient treatment
NA = non-abused
NR = data not reported in article
OPT = out-patient treatment
PA = physically abused
RSA = ritualistically abused in day care
SA = sexually abused
SAT = sexual abuse treatment or evaluation, out-patient unless indicated
V = victims

* = children in sex rings
** = sexually agressive victims
+ = non-sexually aggressive victims

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